SKOROBOGAT'KO, V.Z. (L'vov)

First aid in wounds and fractures of the lower jaw. Fel'd. i akush. 21 no.8:20-24 Ag '56. (MLRA 9:10)
(JAWS--FRACTURE)

SKOROBOGAT'KO, V. Z. Doc Sand Med Sci -- (diss) " Changes in the kidneys during odontogenic osteomyelitis of jaws and perimaxillary phlegmon." Mos, 1957. 8 pp 22 cm. (First Moscow Order of Lenin Medical Inst im I.M. Sechenov), 200 copies

(AL, 21-57, 107)

SKOROBOGAT'KO, V.Z..

Renal changes in acute inflammatory processes in the jaws. Stomatologiia 36 no.1:42-47 Ja-F '57. (MIRA 11:1)

1. Iz stomatologicheskoy kliniki (dir. - prof. I.M.Starobinskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni M.M.Sechenova.
(JAWS--DISEASES) (KIDNEYS--DISEASES)

SKOROBOGAT'KO, V.Z., kand.med.nauk

Clinical and radiological parallels in perimaxillary phlegmons. Stomatologiia 40 no.2:32-33 Mr-Ap '61. (MIRA 14:5)

1. Iz stomatologicheskoy kliniki (zav. - prof. I.M.Starobinskiy) I Moskovskogo meditsinskogo instituta imeni I.M.Sechenova.
(PHLEGMON) (JAWS--DISEASES)

GOLUB, A.M.; SKOROBOGAT'KO, Ye.P.

Thiocyanate complexes of thallium (1). Report No. 2. Urk. khim. zhur. 27 no. 1:16-22 '61. (MIRA 14:2)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko, kafedra neorganicheskoy khimii.
(Thallium compounds)

DEMCHENKO, P.A.; SKOROBOGAT'KO, Ye.P.

Effect of phenols on the solubilization of hydrocarbons in soap solutions. Ukr.khim.zhur. 28 no.2:203-205 '62. (MIRA 15:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Phenols) (Hydrocarbons) (Solubility)

DEMCHENKO, P.A., kand. khim. nauk; SKOROBOGAT'KO, Ye.P., inzh.

Effect of alkylamides on the solubilization of carbohydrates in soap solutions. Masl.-zhir. prom. 29 no.5:17-19 My '63. (MIRA 16:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Cleaning compounds) (Amides)

ALENT'YEV, Aleksandr Aleksandrovich, doktor tekhn. nauk, prof. [deceased]; SKOROBOGAT'KO, Ye.P.[Skorobohat'ko, IE.P.], red.; MOCHALOVA, N.I., red.

[D.I.Mendeleev's periodic system of elements] Periodychna systema elementiv D.I.Mendelieieva. Kyiv, Radians'ka shkola, 1965. 159 p. (MIRA 18:9)

SKOROBOGAT'KO, Ye.Ya.

Extremum principle for systems of differential equations of the second order. Sib. mat. zhur. 2 no.5:746-758 S-O '61. (MIRA 15:3)

(Differential equations)

ACC NR: AN7006278 (N) SOURCE CODE: UR/9002/67/000/031/0004/0004

AUTHOR: Skorobogatov, A.

ORG: none

TITLE: The "Krab" shows and tells [underwater television camera]

SOURCE: Gudok, no. 31, 5 Feb 67, p. 4, col. 1-4

TOPIC TAGS: underwater photography, underwater camera, tv camera

ABSTRACT: A new underwater TV camera, the Krab-1, to be used for inspecting underwater structures and for monitoring underwater construction work has been developed. The prototype was designed three years ago in a special design bureau "Gazpriboravtomatika" under chief engineer B. A. Monastyrev. Candidate of Technical Sciences V. V. Sokolov said that the test trials with the camera were successful and that soon underwater TV will be used when building underwater installations in the basins of the Black Sea, the Baltic, and the Far East. Five TV installations of Krab-1 type are now being constructed. A halftone accompanying the article shows a scuba driver aiming the camera, and it is stated that special equipment has been designed to make the camera fully remote controlled. The installation was requested by the All-Union Scientific-Research Institute of Transport Construction. [NC]

SUB CODE: 13, 14, 09 SUBM DATE: none/ ATD PRESS: 5115

Card 1/1 UDC: none

POKROVSKIY, V.V.; SAMODELOV, A.P.; SK[illegible]BOGATOV, [illegible].A.

Electrochemical refining of crude zinc in fused salts. TSvet. met. 38 no.2:86 F '65. (MIRA 18:3)

SKOROPOGATOV, A., Director of the Bolshe-Popova M.T.S. and Zeleranskiy, Chief MTS Engineer, Bolshe-Popova MTS, Bolshe-Popova Village, Lebedyan District, Lipetsk Province:
"Concerning Bureaucratic Obstacles and MTS Needs"

(Izvestiya, May 27, 1954, p. 2)

Current Digest of the Soviet Press, Vol. 6, No. 21, 7 Jul. 1954, p.33

SKOROBOGATOV, A.M.

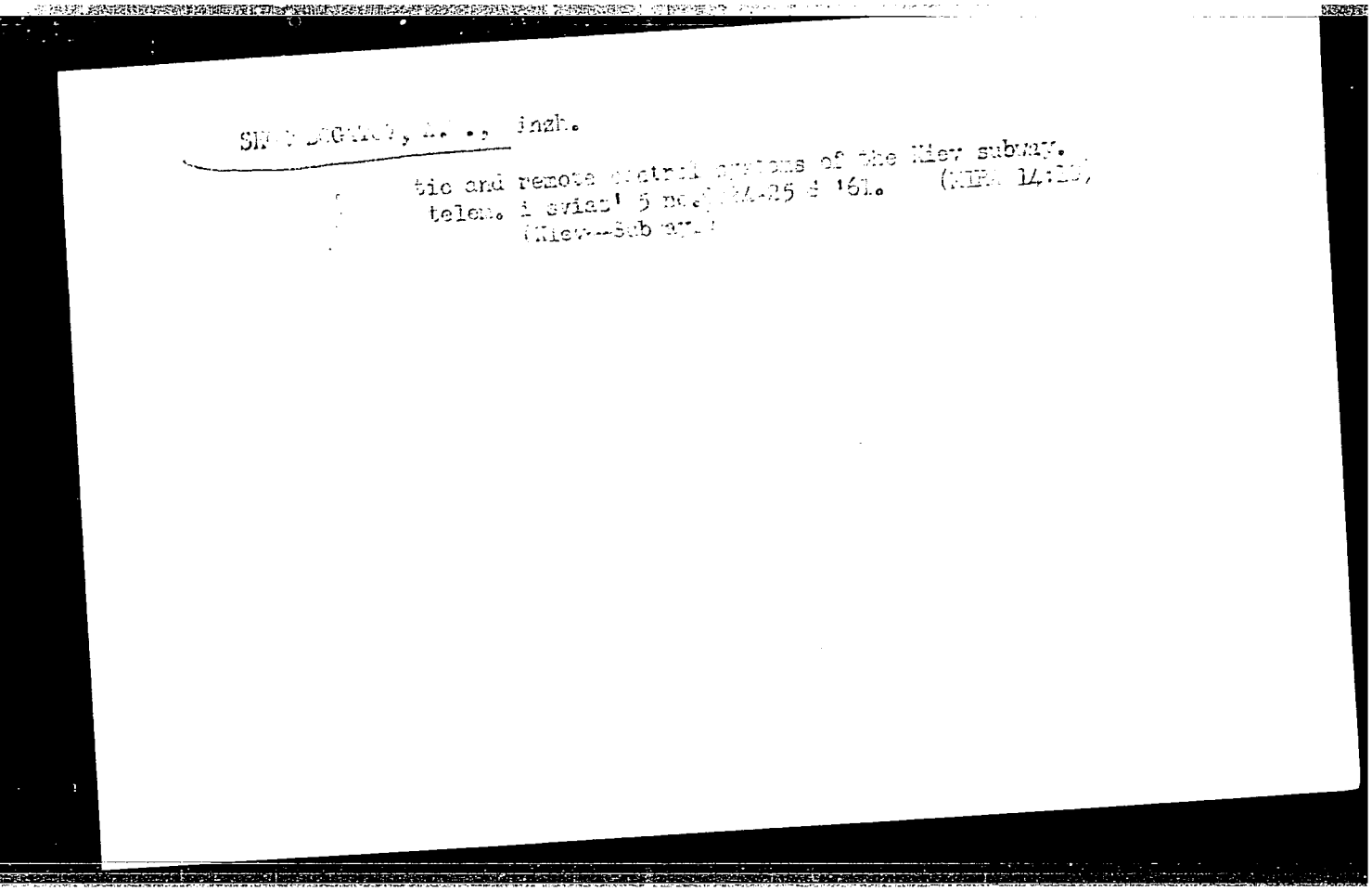
Increasing the traffic capacity of subway lines. Avtom., telem.i sviaz' 3 no.7:29-32 Jl '59. (MIRA 12:12)

1. Starshiy inzhener signalizatsii, tsentralizatsii, blokirovki i svyazi Metrogiprotransa.
(Subways)

SKOROBOGATOV, A.M., starshiy inzhener

Automatic route control at subway stations. Avtom., telem. i sviaz' 4 no. 12:8-10 D '60. (MIRA 14:1)

1. Otdel signalizatsii, tsentralizatsii, blokirovki i svyazi Metrogiprotransa.
(Subways)



SM[illegible] inzh.

tic and remote control systems of the Kiev subway.
telem. i sviaz' 5 no. [illegible]4-25 s 161. (MIRA 14:12)
(Kiev--Subways)

SKOROBOGATOV, A.M.

Control of the speed of trains in subway stations. Avtom., telem. i sviaz' 9 no.7:17-19 Jl '65. (MIRA 18:8)

1. Glavnyy spetsialist otdela signalizatsii, tsentralizatsii, blokirovki i svyazi Gosudarstvennogo ordena Trudovogo Krasnogo Znameni proyektno-izyskatel'skogo instituta.

Skorobogatov, BS

K

USSR / Optics

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10340

Author : Sinel'nikov, K.D., Shklyarevskiy, I.N., Skorobogatov, B.S.
Inst : Not Given
Title : Determination of the Optical Constants of Germanium.

Orig Pub: Uch. zap. Kharkovsk. un-ta, 1955, 6, 135-140

Abstract: The index of refraction μ of thin germanium films was measured by the germanium-wedge method, coated in vacuum on glass or on silver. The average value $\bar{\mu}$ in the given region of the wedge thickness was obtained from the equation $\bar{\mu} = \lambda / 4 (t_{k\,min} - t_{k\,max})$ where $t_{k\,min}$ and $t_{k\,max}$ are the thicknesses of the germanium wedge in the locations of the k'th interference minimum and maximum for a given wavelength. For λ = 590 mμ the value of μ is independent of t all the way up to t on the order of 4 x 10^{-5} cm and equals 3.6 This shows that the structure of the films does not change with thickness. For λ = 690 and 550 mμ, the value of μ is 4.1 and 3.4

Card : 1/2

USSR / Optics

K

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10340

Author : Sinel'nikov, K.D., Shklyarerskiy, I.N., Skorobogatov, B.S.

respectively, and the coefficient of absorption $\mu\chi$ of thick germanium films that are opaque to visible light was determined from measurements of the coefficient of reflection (Avery, D.G., Proceedings Physical Society, 1952, B65, 425). For λ = 650, 600 and 550 mμ the value of μ is 3.7, 3.5 and 3.4 while $\mu\chi$ is 1.8, 2.1, and 2.3. In the region from 400 to 1100 mμ the value of $\mu\chi$ was determined from the measurements of the coefficient of transmission; the results are in good agreement with data obtained by the methods described above, and with data by other investigators. For λ = 300 and 500 mμ the values of $\mu\chi$ are independent of the temperature in the range from 20 to 250°, and for λ = 700 to 1100 mμ, there is a linear increase of $\mu\chi$ with the temperature.

Card : 2/2

Study of Wave Propagation in Optical Waveguides.

the effective length of waveguide of 30 μ. Monochromatic light was focussed on the entrance to the waveguide. After passing through the waveguide the light was observed by a microscope. With decrease of the gap width at a certain value of the gap width, called the critical value, darkness appears in the observed image. This critical gap width was reproducible, at a given wavelength, in many tests. Results of measurement of the critical gap width a for various wavelengths are given in Fig.4 (circles). The continuous curve in Fig.4 represents a theoretical dependence of a on λ, calculated from formulae found in this paper. Diffraction effects were observed in plane waveguides. When parallel light was incident at an angle θ to the waveguide axis, then two intense diffraction maxima are observed at the exit of the waveguide (Fig.5). One of these maxima lies in the direction of the incident light beam and the other makes an angle θ with the waveguide axis. Each of these diffraction maxima exhibited further maxima and minima in its spectrum. Such a spectrum can be explained by elementary considerations of partial plane waves in the waveguide (Ref.3). Positions of the bands formed by minima and maxima in each

diffraction system were measured for various values of θ and a. A gap between silvered edges of a micrometer served as the waveguide. The micrometer was fixed to a goniometer table and placed in front of a slit of a spectroscope. A diaphragm limited the length of the waveguide to 8 mm. The results are given in Table 2. By measurement of angle θ of Fig.5 phase velocities of various waves in the waveguide were found. They are given in Fig.7 as a dependence of the ratio of the phase velocity to the velocity of light in vacuo on the waveguide gap width a. When a plane optical waveguide was placed between two crossed polarizers, then at gap widths 5-15 μ bright interference colors were observed. It is shown that this effect is due to interference of magnetic and electric components of the electromagnetic wave.

The author thanks Academician K. D. Sinel'nikov of the Ukrainian Academy of Sciences for suggestion of the subject of study and for supervision. He also thanks Candidate of Physico-mathematical Sciences Ya. B. Faynberg for

SOV/51-7-6-23/38

AUTHOR: Skorobogatov, B.S.

TITLE: Diffraction at the Exit of an Optical Waveguide

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, No 6, pp 823-824 (USSR)

ABSTRACT: Heinze and Schmelzer (Ref 1) studied diffraction of light by a "deep slit" at various angles of incidence and found that their experimental results agreed qualitatively with those calculated for diffraction at the exit of a plane waveguide of Barrow and Green. From this Heinze and Schmelzer deduced the field distribution inside their slit (Fig 1a). The present author used white light under the same conditions and found periodic dark bands in the spectra of the main maxima. This effect was described and explained in detail earlier (Ref 2). From the explanation of the dark bands it follows that, in the case of "asymmetric" excitation, the diffraction pattern depends on the length of the waveguide and is, in general, asymmetric. This conclusion contradicts Heinze and Schmelzer's results since it implies that in the case of asymmetric excitation the field distribution inside the slit or the waveguide does not correspond to a wave of definite order. To settle this question the authors studied diffraction in monochromatic light under the conditions of asymmetric and symmetric excitation. In the case of asymmetric excitation the slit (the waveguide) was the same as that used by Heinze and Schmelzer (Fig 1a).

Card 1/2

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SOV/51-7-6-27/38

24.3300

AUTHOR: Skorobogatov, B.S.

TITLE: The Field Distribution in Optical Waveguides

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, No 6, pp 832-833 (USSR)

ABSTRACT: In studies of propagation of waves in optical waveguides (Ref 1) a source placed at a large distance from the waveguide was used. Under such conditions certain special effects are observed: it is found that by selecting the angle of incidence of a parallel beam on the entry slit of a waveguide, waves of various orders could be excited in the latter. The condition which has to be satisfied by the angle of incidence θ is $\cos\theta = c/v_{ph}$, where v_{ph} is the phase velocity. When the angle of incidence does not obey the cosine relationship, waves of two neighbouring orders are excited simultaneously. In a paper published in the present issue (p 823) the author showed that only in the case of symmetrical excitation the diffraction pattern is independent of the waveguide length and the field distribution in the waveguide is the theoretical one for waves of given order. Using Fourier transformations and Kirchhoff's theory the field distribution inside a waveguide can be deduced from the angular distribution of intensities in the diffraction pattern. The apparatus used had the usual form employed for observation of Fraunhoffer diffraction. The patterns were photographed and measured with a

Card 1/3

The Field Distribution in Optical Waveguides

microphotometer. Fig 1 shows the angular distribution of the relative intensity at the exit of a 25 mμ wide waveguide for H-waves (polarization of the light along the slit) at angles of incidence ϑ = 30' (curve a), 50' (curve δ), 1°40' (curve б), 1°20' (curve г) and for E waves (polarization of the light at right angles to the slit with ϑ = 30', curve δ). Fig 2 shows the dependences of the transverse component of the electric vector E_i on the coordinate (this coordinate is at right angles to the plane walls of the waveguide) calculated from the experimental diffraction patterns. The continuous lines are theoretical curves calculated using formulae given earlier by the author (Ref 1). These curves correspond to the field distributions for H_2, H_3, H_1 and E_2-waves (a, в, б and δ respectively). The г curve joins the experimental points, and harmonic analysis of this curve shows that the intensities of the H_3 and H_2 waves are in the ratio of 1:0.16. The results obtained show that at the angles of incidence obeying the cosine relationship (excitation of waves of one order) the field distribution agrees very well with the theoretical distribution expected

4

Card 2/3

The Field Distribution in Optical Waveguides

for a wave of a given order. At other angles of incidence waves of two neighbouring orders are excited, whose relative intensities can be determined from the diffraction patterns, as shown above for H waves excited by light incident at $\theta = 1^{\circ}20'$ (curves 2 in Figs 1 and 2). Acknowledgments are made to K.D. Sinel'nikov and I.N. Shklyarevskiy for their advice. There are 2 figures and 2 Soviet references. 4

Note. This is a complete translation.

SUBMITTED: June 1, 1959

SKOROBOGATOV, B. S., Cand Phys-Math Sci -- (diss) "Research into optical wave-guides." Khar'kov, 1960. 8 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Khar'kov Order of Labor Red Banner State Univ im A. M. Gor'kiy); 150 copies; free; (KL, 23-60, 121)

SKOROBOGATOV, B.S. [Skorobohatov, B.S.]

Surface waves transmitted along the boundary between media with positive and negative dielectric constants. Dop.AN URSR no.5: 623-625 '60. (MIRA 13:7)

1. Khar'kovskiy gosudarstvennyy ordena Trudovogo Krasnogo Znameni institut im. A.M.Gor'kogo. Predstavleno akademikom AN USSR K.D. Sinel'nikovym [K.D.Synel'nykom].
(Waves)

SYSOYEV, L. A.; KRAYNYUKOV, N. I.; SKOROBOGATOV, B. S.; SAZONOVA, S. A.

Luminescence of zinc sulfide single crystals grown from a melt. Opt. i spektr. 13 no.6:859-861 D '62. (MIRA 16:1)

(Zinc sulfide crystals—Growth)
(Zinc sulfide—Spectra)

KONOVALOV, Oleg Mikhaylovich; SKOROBOGATOV, B.S., kand. fiz.-matem. nauk, otv. red.; DEREVYANCHENKO, R.M., red.

[Semiconductor materials] Poluprovodnikovye materialy. Khar'kov, Izd-vo Khar'kovskogo univ., 1963. 212 p. (MIRA 17:5)

GEL'FMAN, A.Ya.; KVYATKOVSKAYA, Ye.F.; LUZAN, R.G.; SKOROBOGATOV, B.S.

Some electrophysical properties of polyvinyl alcohol and its chelate compounds. Vysokom. soed. 5 no.10:1534-1537 O '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

ACCESSION NR: AP4020973 S/0051/64/016/003/0538/0539

AUTHOR: Skorobogatov,B.S.; Sazonova,S.A.; Dolgopolova,A.V.; Kovaleva,L.V.

TITLE: Luminescence of trivalent samarium in NaCl and KCl crystals

SOURCE: Optika i spektroskopiya, v.16, no.3, 1964, 538-539

TOPIC TAGS: sodium chloride host, potassium chloride host, rare earth activator, laser material, samarium ion, samarium 3+

ABSTRACT: The study is one of a series devoted to investigation of the luminescence of trivalent rare earth ions in NaCl and KCl single crystals, grown by the authors. This paper describes the results obtained for trivalent samrium in NaCl and KCl. The luminescence spectra of Sm^{3+} in NaCl were recorded at 77, 300 and 450°K (the spectrograms are reproduced). Three characteristic line groups are observed at all three temperatures; the most intense lines are probably associated with transitions from the lowest radiative level to the levels of the ground state multiplet. Fine structure is evinced at all the above temperatures, but at 77°K the spectrum is simplified and the lines become much narrower. The above mentioned spectra are compared with the spectrum of Sm^{3+} in CaF_2. The spectra are similar, but some of the

Card 1/2

ACCESSION NR: AP4020973

lines evinced in the spectrum of Sm^{3+} in CaF_2 at 300°K appear in the spectrum in NaCl only at 450°. In the spectrum of Sm^{3+} in KCl at 300°K (the only one shown) only three lines are observed; these agree in frequency with the principal lines in the spectrum of Sm^{3+} in NaCl; this would indicate that in view of the difference in ionic radii the Sm^{3+} ion is less readily incorporated into the KCl lattice as compared with the NaCl lattice. The reproduced luminescence spectra were recorded by means of an ISP-51 spectrograph with an f = 270 mm camera on Agfa-640 film. The luminescence was excited by filtered radiation from a mercury discharge tube. "The authors are grateful to P.P.Feofilov for his interest in the work and for making available the CaF_2-Sm^{3+} crystal." Orig.art.has: 2 figures.

ASSOCIATION: none

SUBMITTED: 24Jun63 DATE ACQ: 02Apr64 ENCL: 00

SUB CODE: PH NR REF SOV: 000 OTHER: 003

Card 2/2

ACCESSION NR: AP4042993 S/0051/64/017/001/0141/0143

AUTHORS: Dolgopolova, A. V.; Kovaleva, L. V.; Sazonova, S. A.; Skorobogatov, B. S.

TITLE: On the luminescence of rare earth ions in NaCl crystals

SOURCE: Optika i spektroskopiya, v. 17, no. 1, 1964, 141-143

TOPIC TAGS: luminescence, sodium chloride, rare earth element, praseodymium, terbium, ytterbium, gadolinium, neodymium

ABSTRACT: Continuing earlier research on NaCl crystals activated with trivalent samarium ions (Opt. i spektr. No. 3, 538, 1964), the authors report the luminescence of Pr^{3+}, Tb^{3+}, Gd^{3+}, Nd^{3+}, and Yb^{2+} in NaCl crystals, and present the luminescence spectra for Pr^{3+} and Tb^{3+} at room and low temperatures, and the absorption spectra of Yb^{2+} in NaCl, KCl, and KBr. Some of the possible level transitions responsible for the most pronounced lines are indicated.

1/2

L 65026-65 EWT(l)/EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPA(w)-2/T/EWP(t)/EWP(b)/EWA(c)/ IJP(c) JD/GG/WH

ACCESSION NR: AP5022251 UR/0363/65/001/007/1049/1050
679.88:548.55

AUTHOR: Somov, A. I.; Skorobogatov, B. S.; Kurilo, Yu. P.; Chernyy, O. V.

TITLE: Growing corundum single crystals by Czochralski technique in vacuum

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1049-1050

TOPIC TAGS: corundum, aluminum oxide, alumina, aluminum compound, single crystal, single crystal growth, single crystal growing, crystallization, etched crystal, crystal dislocation, corundum single crystal, melt crystallization, Czochralski technique, crystal dislocation structure

ABSTRACT: The Czochralski technique has been applied to grow corundum single crystals more perfect than crystals grown by other techniques (Verneuil, hydrothermal, fluxed melt). The starting material, aluminum oxide powder in briquet form, was sintered and smelted to

Card 1/2

L 65026-65

ACCESSION NR: AP5022251

4

minimize the gas evolution at the start of crystal pulling operation. The ingots were remelted in tungsten crucibles in vacuum and the crystals were pulled at the optimum rate of 1.5 cm/hr. Dislocation structure of the crystals was studied by x-ray and micrographic methods. The average density of dislocations (etch pits) on the (0001) plane was found to be two orders of magnitude lower than in the crystals grown by the Verneuil technique. The slip lines observed on the (0001) plane presumably were developed in the process of cooling. Orig. art. has: 2 figures. [JK]

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk UkrSSR, Khar'kov (Physicotechnical Institute, AN UkrSSR)

SUBMITTED: 13Mar65 ENCL: 00 SUB CODE: SS,GP

NO REF SOV: 001 OTHER: 005 ATD PRESS: 4082

Card 2/2

L 43910-65 EPF(c)/EPF(n)-2/EPA(s)-2/EWT(1)/EWT(m)/EWP(b)/EWP(t) Pi-4/Pr-4/Pt-7/ Pu-4 IJP(c) JD/JG

ACCESSION NR: AP5009513 S/0048/65/029/003/0406/0408

AUTHOR: Skorobogatov, B.S.; Sazonova, Z.A.; Dolgopolova, A.V.; Kovaleva, L.V.

TITLE: Luminescence of trivalent rare earth ions in NaCl crystals /Report, 12th Conference on Luminescence held in L'vov, 30 Jan-5 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 3, 1965, 406-408

TOPIC TAGS: luminescence, luminescence spectrum, luminescent crystal, sodium chloride, rare earth element

ABSTRACT: The authors have investigated the luminescence of trivalent Nd, Pr, Sm, Gd, Tb, Dy, and Er ions in NaCl crystals. Two types of luminescence center were found; which type was realized in a given crystal depended on undisclosed conditions under which the crystal was grown. The luminescence spectrum of one type consists essentially of a line spectrum of the rare earth; the luminescence spectrum of the other type contains, in addition to the line spectrum, a broad band in the blue, the origin of which is not understood. Photographs are presented of the luminescence spectra at several temperatures of $NaCl:Pr^{3+}$, $NaCl:Sm^{3+}$, $NaCl:Tb^{3+}$, $NaCl:Dy^{3+}$, and $NaCl:Er^{3+}$; the luminescence spectrum of $NaCl:Nd^{3+}$ and the excitation

Card 1/2

L 43910-65

ACCESSION NR: AP5009613

3

spectrum of NaCl:Tb^{3+} are presented graphically. These spectra are discussed and the transitions responsible for many of the lines are identified. In NaCl:Sm^{3+} the positions of the lowest radiation level (a mixture of $^4G_{5/2}$ and $^6P_{7/2}$ states) and the $^6H_{7/2}$ and $^6H_{9/2}$ levels are in good agreement with the calculations of B.G. Wybourne (J.Chem. Phys., 36 2301 (1962)). It is concluded that the rare earth ions enter regularly into the lattice structure, probably by replacing cations, that the field at the location of the rare earth ion has lower than cubic symmetry, and that the rare earth ion interacts strongly with its surroundings. "The authors thank L.B.Kol'sar, N.K.Shipan, and S.I.Grineva for assistance with the work." Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: OP, SS

NR REF SOV: 000 OTHER: 003

Card 2/2 MB

S[illegible], A.[illegible]; [illegible], B.S.; [illegible], Yu.[illegible]; [illegible], [illegible]V.

Growing of corundum single crystals in vacuo according to the [illegible]pul'skii method. Izv.AN SSSR. Neorg. mat. 1 no.7:1048-1050 Jl '65. (MIRA 18:[illegible])

1. Fiziko-tekhnicheskiy institut AN [illegible], Khar'kov.

L 15562-66 EWT(1)/T IJP(c) GG

ACC NR: AP6004410 SOURCE CODE: UR/0051/66/020/001/0096/0100

AUTHOR: Ageyeva, N. K.; Dubovik, M. F.; Rybkin, Yu. F.; Sazonova, S. A.; Skorobogatov, B. S.; Smirnova, O. M.

ORG: none

TITLE: A method for producing lanthanon-activated cadmium fluoride crystals and an investigation of their luminescence

SOURCE: Optika i spektroskopiya, v. 20, no. 1, 1966, 96-100

TOPIC TAGS: calcium fluoride, cadmium compound, fluoride, phosphor crystal, rare earth element, luminescence, absorption spectrum

ABSTRACT: The authors report on a method for producing cadmium fluoride phosphor crystals activated by rare earth ions. The general nature of luminescence in these crystals is studied. The crystals were grown from anhydrous cadmium fluoride produced by sintering a mixture of cadmium oxide with ammonium fluoride. The hydrogen fluoride released during thermal decomposition converts the cadmium oxide into cadmium fluoride. Litmus paper may be used for determining the degree of conversion. The vapors released during the process are alkaline, changing to neutral or weakly

Card 1/2

UDC: 535.37 : 548.0

acid at the end. This indicates decomposition of excess ammonium fluoride. The purity of the initial reagents has a strong effect on the quality of the product. Absorption spectra were used for checking the degree of purity of the final crystal. Crystals were produced with a transmission factor of 30% for a thickness of approximately 5 mm at a wave length of 200 mμ. Activator concentrations were 0.2, 1, 5 and 10 mol.% for CdF_2 crystals with NdF_3 and 0.2 mol.% for crystals with the other lanthanides. The following trivalent activating ions were studied: Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tu and Yb. A comparison of the luminescence spectra for these ions in cadmium fluoride and calcium fluoride crystals shows that in spite of the identical types of lattice and the close parameters, the behavior of rare earth ions in these crystals has very little in common. This is emphasized particularly in the luminescence spectra for trivalent Pr, Dy and Tb and in the absence of luminescence for thulium. The difference between these two matrices shows up in the valence of the impurity ions. For instance europium is usually bivalent in calcium fluoride, while it is always trivalent in cadmium fluoride. This may be explained by the difference in oxidation potentials for bivalent calcium and cadmium. Orig. art. has: 6 figures.

SUB CODE: 20/ SUBM DATE: 30Jul64/ ORIG REF: 002/ OTH REF: 008

L 24281-66 EWT(m)/EWP(t) IJP(c) JD/GW/JG

ACC NR: AP6007026 SOURCE CODE: UR/0051/66/020/002/0371/0374

AUTHOR: Dubovik, M. F.; Promoskal', A. I.; Skorobogatov, B. S.

ORG: none

TITLE: Luminescence of Eu^{3+} in cadmium fluoride crystals

SOURCE: Optika i spektroskopiya, v. 20, no. 2, 1966, 371-374

TOPIC TAGS: luminescence, activated crystal, cadmium compound, fluoride, laser optic material, luminescence center

ABSTRACT: In view of the possible use of suitably prepared CdF_2-Eu^{3+} crystals as active media for lasers, the authors have investigated the conditions for the formation of luminescence centers in various types of such crystals. Single crystals of cadmium fluoride purified by zone refining, with high transmittance in the uv region, were grown, with EuF_3 introduced in concentrations of 0.02, 0.2, and 2 at.% of Eu^{3+}. Crystals with compensation of the excess charge of Eu^{3+} with Na^+ or S^{2-} ions were grown with suitable addition of NaF and CdS. The relative concentration of the luminescence centers in a cubic field is estimated by means of a procedure similar to that used by V. V. Osiko (FTT v. 7, 1294, 1965) for similar calculations in the case of CaF_2. The experimental and theoretical results agree within one order of magnitude. Some of the limitations of the spectral analysis method are briefly discussed. Orig. art. has: 1 figure and 3 formulas.

SUB CODE: 20/ SUBM DATE: 12Jul65/ ORIG REF: 003/ OTH REF: 004

Card 1/1 UDC: 535.37: 548.0

5(3) SOV/79-29-9-13/76

AUTHORS: Murashov, G. M., Nefedov, V. D., Skorobogatov, G. A., Smirnov, V. M.

TITLE: Investigation of the Synthesis Mechanism of Alcohols According to Grignard by Means of Tagged O

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 2864-2868 (USSR)

ABSTRACT: As proven by A. N. Nesmeyanov and V. A. Sazonova (Ref 1), a hydrolysis of carbinolates must take place in the final stage of reaction in the synthesis of alcohols and carboxylic acids according to Grignard. Two entirely different reaction courses are possible in this connection. In the synthesis of alcohols the hydrolysis of carbinolates may occur either by the cleavage of the bond between the alkyl group and the oxygen atom:

$R\text{-}O\text{-}MgHal + HO^{*}H \longrightarrow R\text{-}O^{*}H + Mg(OH)Hal$ (I), or by the cleavage of the bond between the magnesium- and oxygen atoms

$R\text{-}O\text{-}MgHal + HO^{*}H \longrightarrow R\text{-}OH + Mg(O^{*}H)Hal$ (II). There are but scarce mentions in publications concerning the investigation of Grignard's reactions by the aid of isotopes (Ref 2). Some authors (Ref 3) consider a magnesium isotope exchange between the Grignard reagent and the magnesium halides to be possible;

Card 1/3

Investigation of the Synthesis Mechanism of Alcohols According to Grignard by Means of Tagged O

still, the isotope exchange between CH_3MgBr and $Mg^{28}Br_2$, for example, did not yield any positive results (Ref 4). Finally, an investigation by means of deuterium was made of the reducing action of the Grignard reagent in the reduction of benzophenone in benzohydrol under the action of isobutyl magnesium bromide (Ref 5). Nothing has yet been published concerning the rearrangement of oxygen in the synthesis of alcohols and carboxylic acids. An attempt was made in the investigation under review to explain whether reaction (I) or (II) takes place in the hydrolysis of carbinolates. The initial step was the synthesis of triphenyl carbinol by the reaction of benzophenone with phenyl magnesium bromide (Scheme 3), and the hydrolysis of carbinolate of magnesium was shown to take place with the preservation of the alkyl-oxygen bond and with the separation of the metal-oxygen bond. The reaction water was investigated for O^{18} according to A. I. Brodskiy (Ref 7) in the mass spectrometer of type MS-1. There are 1 table and 11 references, 5 of which are Soviet.

SOV/79-29-9-13/76

Investigation of the Synthesis Mechanism of Alcohols According to Grignard by Means of Tagged O

ASSOCIATION: Leningradskiy gosudarstvennyy universitet
(Leningrad State University)

SUBMITTED: September 21, 1958

Card 3/3

PHASE I BOOK EXPLOITATION SOV/5404

Murin, A. N., V. D. Nefedov, and V. P. Shvedov, eds.

Radiokhimiya i khimiya yadernykh protsessov (Radiochemistry and the Chemistry of Nuclear Processes) Leningrad, Goskhimizdat, 1960. 784 p. Errata slip inserted. 13,000 copies printed.

Ed.: F. Yu. Rachinskiy; Tech. Ed.: Ye. Ya. Erlikh.

PURPOSE : This textbook is intended for students of physical chemistry or radiochemistry at universities and schools of higher education. It may also serve as a handbook for scientific workers and technical personnel in the radiochemical industries and other related branches.

COVERAGE: The textbook deals with problems in modern radiochemistry, including adsorption, cocrystallization, isotope exchange in radioactive elements, the chemistry of nuclear processes, and methods of preparing radioactive isotopes and labeled compounds. Special attention has been given to chemical processes caused by radioactive transformations and radiation. In the main the book was compiled by person-

Card 1/16

Radiochemistry and the Chemistry (Cont.) SOV/5404

nel of the Radiochemistry Department, Leningradskiy gosudarstvennyy universitet imeni A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov), and the Department of the Technology of Artificial Radioactive Isotopes, Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute imeni Lensovet). No personalities are mentioned. References accompany individual chapters.

TABLE OF CONTENTS:

23004

S/186/61/003/002/016/018
E142/E435

On multiply tagged compounds

unstable systems. The authors discuss the importance of these multiply tagged compounds for certain chemical investigations as for instance the reaction mechanism of the isotope exchange between triphenyl antimony and triphenyl dichloro-antimony (Ref.2: V.D.Nefedov, Pang Wen-Ch'ing, Acta Sci.Nat.Univ.Pekinensis, 319 (1958)) or for establishing the nature of intermediate complexes. Difficulties in the synthesis of these multiply tagged compounds are discussed especially the need for knowing exactly the initial concentration of the isotopes in the samples since otherwise it is not possible to calculate the yields of the various isotope molecules of the synthesized compound and to carry out mass spectrometric analysis. Any individual chemical compound represents in itself a mixture of isotope compositions and these, in turn, represent a mixture of isotope isomers. Formulae expressing the content of isotope-isomer molecules can easily be deduced. The kinetics of the radioactive decomposition of multiply tagged compounds and the agglomeration of the products of this decomposition were also studied. The molecule which is obtained during the decomposition of one of the radioactive atoms of

Card 2/3

23004

S/186/61/003/002/016/018
E142/E435

On multiply tagged compounds

the multiply tagged molecule is also tagged and can therefore undergo further decomposition. Formulae of the decomposition of the molecule are derived and the conditions for maximum yield of isotope compounds are determined. A.D.Petrov is mentioned. There are 1 figure and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc. The reference to an English language publication reads as follows: R.L.Wolfgang, R.C.Anderson, R.W.Dodson, J.Chem.Phys., 24, 1, 15 (1956).

SUBMITTED: September 19, 1959

Card 3/3

SKOROBOGATOV, G.A.

Influence of thermodynamic isotope effect on the distribution of isotopic molecules. Izv.AN SSSR.Otd.khim.nauk no.10:1763-1771 O '61. (MIRA 14:10)

1. Institut khimii silikatov AN SSSR.
(Isotopes)

SKOROBOGATOV, G.A.

Formal kinetics of some concurrent bimolecular reactions and calculation of kinetic isotope effect in the distribution of isotopic molecules. Izv.AN SSSR. Otd.khim.nauk no.11:1964-1977 N '62. (MIRA 15:12)

1. Institut khimii silikatov AN SSSR.
(Hydrogen—Isotopes) (Chemical reaction, Rate of)

NEFEDOV, V.D.; KHARITONOV, N.P.; LI DE-FU [Li Tieh-fu]; GUSEV, Yu.K.; SKOROBOGATOV, G.A.; SMIRNOV-AVERIN, A.P.; SEVAST'YANOV, Yu.G.; KHUDOBIN, Yu.I.

Tritiation of organosilicon compounds by the method of rebounding tritium atoms. Zhur.ob.khim. 32 no.2:614-618 F '62. (MIRA 15:2)

1. Institut khimii silikatov AN SSSR i Leningradskiy gosudarstvennyy universitet.
(Silicon organic compounds)
(Tritium)

NEFEDOV, V.D.; SKOROBOGATOV, G.A.; NOVAK, K.; PLUCHENNIK, G.; GUSEV, Yu.K.

Use of a double tag for detecting glycine formed from Omethylene-C^{14}) succinic acid as a result of carbon-14 -decay. Zhur.ob.khim. 33 no.2:339-342 F '63. (MIRA 16:2)

1. Leningradskiy gosudarstvennyy universitet.
(Glycine) (Succinic acid) (Carbon isotopes--Decay)

NECHAYEV, B.P.; NEFEDOV, V.D.; KHARITONOV, N.P.; SKOROBOGATOV, G.A.

Chemical effects of N^{14} (n, p) C^{14} reaction in triethylsilylmethylamine. Izv. AN SSSR. Ser. khim. no.7:1266-1267 '65. (MIRA 18:7)

1. Institut khimii silikatov AN SSSR i Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.

SKOROBOGATOV, G.A.

Formal kinetics of competitive bimolecular reactions and the calculation of kinetic isotope effect in the distribution of isotopic molecules. Vest. LGU 20 no.10:128-141 '65. (MIRA 18:7)

MEKHOV, V.D.; SKOROBOGATOV, G.A.; SMIRNOV, V.M.; MUSAKIN, A.P.; VOROB'YEV, L.N.

Microsynthesis of C^{14} multiple-tagged benzene and isotopic effects. Zhur. org. khim. 1 no.9:1615-1620 S '65. (MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet. Submitted July 11, 1964.

SKOROBOGATOV, I. I.

"Filling an Open Gap in a Horse's Lower Jaw," Veterinariya, No. 4, 1949. Dental Prosthetise, -c1949-.

YERMOLAYEVA, Ye. V.; SKOROBOGATOV, I. V.

"Infra-red absorption spectra of alumosilicate melts hardened into vitreous state."

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 Mar 64.

L 12975-66 EWT(d)/EEC(k)-2/T/EWP(1) IJP(c) BB/GG

ACC NR: AP6001520 SOURCE CODE: UR/0302/65/000/004/0062/0064

AUTHOR: Mats, I. S.; Skorobogatov, M. S.

ORG: None

TITLE: The "Kadr" automatic two-point compensation pneumatic detector

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1965, 62-64

TOPIC TAGS: pneumatic computer, analog computer system, recording equipment, signal recording

ABSTRACT: The authors describe an automatic two channel recording device developed by the "Teploavtomat" Experimental Design Office for simultaneously recording the input and output signals of a pneumatic analog computer. A diagram of the kinematic system of the instrument is shown and the operation is described in detail. The pneumatic signals (with pressures which vary from 0.2 to 1.0 kg/cm^2) are recorded by pens on a paper chart. The tape transport mechanism has eight speeds: 0.25, 1.5, 6, 30, 120, 600, 1800, and 3600 mm/min. The unit has an attachment for making time marks on the paper tape. The unit may be used as a desk model, or mounted on the wall or behind a panel. The instrument error is no more than ±0.4% at an ambient temperature of 20 ± 5C. Orig. art. has: 1 figure.

SUB CODE: 13, 09 / SUBM DATE: none

Card 1/1 HW UDC: 62-85:525

SKOROBOGATOV, N.

Grain cleaning machinery and spare parts. Mukh.-elev. prom. 24 no.4: 30 Ap '58. (MIRA 11:5)

1. Oshchepkovskiy khlebopriyemnyy punkt Sverdlovskoy zheleznoy dorogi.

(Grain handling machinery)

SKOROBOGATOV, N.

They organized the cleaning of clover seeds. Muk.-elev. prom. 25 no.4:30 Ap '59. (MIRA 13:1)

1.Direktor Oshchepkovskogo khlebopriyemnogo punkta Sverdlovskoy oblasti.
(Clover) (Seeds--Cleaning)

SOBOLEV, N.N.; BELOUSOV, M.M.; RODIN, G.M.; SVIRIDOV, A.G.; SKOROBOGATOV, N.G.; FAYZULLOV, F.S.

Temperature of the flame of a liquid-propellant rocket engine. Part 1. Zhur.tekh.fiz. 29 no.1:27-36 Ja '59. (MIRA 12:4)

1. Fizicheskiy institut im. P.N. Lebedeva AN SSSR, Moskva.
(Rockets (Aeronautics)) (Flame) (Temperature--Measurement)

AKIMAKINA, L.V.; IVANOV, S.P.; LYCHENKO, D.F.; SKOROBOGATOV, P.A.

Use of DKS-2 cameras for stereoscopic filming with a variable base. Usp.nauch.fot. 9:37-39 '64.

(MIRA 18:11)

SKOROBOGATOV, S. M. Cand Tech Sci -- (diss) "Investigation of Rigidity and Fracture Resistance of Reinforced Concrete Elements on Slag Filler," Novosibirsk, 1960, 18 pp, 250 copies (Novosibirsk Engineering Construction Institute im V. V. Kuybyshev) (KL, 47/60, 103)

TRIGALEV, Vassian Nikolayevich; CHEBOTAREVICH, Vsevolod Osipovich; SKOROBOGATOV, Semen Makeyevich; BRAILOVSKIY, M.I., inzh., retsenzent; BYCHKOV, M.I., kand. tekhn. nauk, retsenzent; MARCHENKOV, I.A., tekhn. red.

[Reinforced-concrete beds for machine tools] Zhelezobetonnye staniny metallorezhushchikh stankov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1960. 93 p. (MIRA 14:6)
(Machine tools) (Reinforced concrete construction)

SKOROBOGATOV, S.M., inzh.

Physical and mechanical properties of foamed slag concrete.
Trudy NII prom. zdan. i soor. no.3:15-28 '60. (MIRA 15:1)
(Lightweight concrete)

SKOROBOGATOV, S.M., inzh.

Study of reinforced concrete elements made with foamed slag aggregate. Trudy NII prom. zdan. i soor. no.3:29-42 '60. (MIRA 15:1)
(Lightweight concrete)

SKOROBOGATOV, S.M., inzh.

Study of the strength and rigidity of the two-ply foamed concrete beams. Trudy Ural. politekh. inst. no.199:126-133 '60.
(MIRA 14:5)

(Lightweight concrete) (Girders)

SKOROBOGATOV, S.M., kand.tekhn.nauk

Slabs of high-strength foamed slag concrete for the roofs of industrial buildings. Bet. i zhel.-bet. no.10:474-475 O '61. (MIRA 14:12)

(Lightweight concrete)
(Roofs, Concrete)

SKOROBOGATOV, S.M., inzh.

Sag in mesh-reinforced slag concrete beams under lengthy active loading. Trudy Ural. politekh. inst. no.110:42-49 '61.
(MIRA 14:7)

(Beams and girders)

SKOROBOGATOV, S.M., inzh.; METSGER, E.Kh.

Strength, rigidity, and fissure resistance in mesh-reinforced foamed slag concrete beams. Trudy Ural. politekh. inst. no.110:50-56 '61. (MIRA 14:7)
(Beams and girders—Testing)
(Lightweight concrete—Testing)

SKOROBOGATOV, S.M.

Prestressed foamed slag concrete slabs with round holes used for roofing apartment houses. Trudy Ural.politekh.inst. no.131:36-41 (MIRA 16:12, '63.

BYCHKOV, M.I.; SKOROBOGATOV, S.M.

15GF low-alloy steel with vanadium for reinforced concrete structures. Trudy Ural.politekh.inst. no.131:42-55 '63. (MIRA 16:12)

SKOROBOGATOV, S.M., kand. tekhn. nauk

Two-layer prestressed slabs of foamed slag concrete. Sbor. trud. Sverd. nauch.-issl. inst. po stroi. no.10:154-158 '63.
(MIRA 17:10)

Skorobogatov, S.V.

SKOROBOGATOV, Stepan Varlamovich; KOVALEV, P.V., otvetstvenny red.; SAVIN, M.M., red.izd-va; BERLOV, A.P., tekhn.red.; ALADOVA, Ye.I., tekhn. red.

[Coal mining machinery] Gornoprokhodcheskie mashiny i mekhanizmy. Moskva, Ugletekhizdat, 1957. 349 p. (MIRA 11:3)
(Coal mining machinery)

SKOROBOGATOV, Stepan Varlamovich; KOSTON'YAN, A.Ya., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.

[Operator of a mine cutter-loader] Mashinist gornoprokhodcheskogo kombaina. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 263 p. (MIRA 14:11)
(Mining machinery)

SKOROBOGATOV, Stepan Varlamovich, inzh.; KUKOL', Vladimir Veniaminovich, inzh.; KOVAL', P.V., dots., kand. tekhn. nauk, retsenzent;

[Mining and construction machinery] Gornoprokhodcheskie i stroitel'nye mashiny. Moskva, Izd-vo "Nedra," 1964. 292 p. (MIRA 17:6)

SKOROBOGATOV, S.V., inzh.

Technical requirements of connection boring machines intended for controlled-angle drilling of upraise holes in coal. Sbor. DonUGI no.33:230-240 '64.

(MIRA 17:11)

SKOROBOGATOV, S.V., inzh.

Determining the durability of a bit in rock cutting. Ugol' 39 no.7:42-45 Jl '64. (MIRA 17:10)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.

L 34878-66 EWT(1)
ACC NR: AR6014189 SOURCE CODE: UR/0271/65/000/011/B003/B003

AUTHOR: Skorobogatov, V. A.

TITLE: Some problems in realization of a computing medium by means of threshold elements

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 11B24

REF SOURCE: Sb. Vychisl. sistemy. Vyp. 16. Novosibirsk, 1965, 87-103

TOPIC TAGS: computer, computer design

ABSTRACT: An element of a 2-dimensional computing medium is defined. Its characteristics are clarified, and its logical diagram is suggested. The computing medium with threshold elements having fixed adjustments is regarded as a 2-dimensional grating that has a number of peculiarities. A model is presented which is a particular case of the fixed-adjustment 2-dimensional computing medium. It is proven that a specified adjustment program and a list of irregular connections are sufficient for specifying the computer scheme. A possibility is demonstrated of realization of various computer schemes that require relatively small amounts of connecting elements. Yu. V. [Translation of abstract]

SUB CODE: 09

UDC: 681.142.1

Card 1/1

SKOROBOGATOV, V.F.

The IM-2B one-way electric actuator. Priborostroenie no.10:25 O '61. (MIRA 14:9)

(Electric controllers)

ZIL'BERMINTS, L.G.; SKOROBOGATOV, V.I.; PETRYAYEVSKAYA, N.V.

Effect of orthonal on the central nervous system. Farm. i toks. 28 no.5:521-524 S-O '65. (MIRA 18:12)

1. Kafedra farmakologii (zav. - prof. A.V.Val'dman) I-go Leningradskogo meditsinskogo instituta imeni I.P.Pavlova. Submitted June 20, 1964.

SKOROBOGATOV, V.I.

Effect of derivatives of the phenothiazine series on the bio-electrical activity of the cerebral cortex in rabbits. Farm. i toks. 26 no.4:414-418 Jl-Ag'63 (MIRA 17:4)

1. Otdel eksperimental'noy terapii (rukovoditel' - prof. A.M. Rusanov) TSentral'nogo nauchno-issledovatel'skogo instituta meditsinskoy radiologii Ministerstva zdravookhraneniya SSSR, Leningrad.

SKOROBOGATOV, V. I.

(c)

Influence of Ionizing Radiation on Processes of Cholinergic Stimulation

A. M. Rusanov, G. A. Bolshakova, A. V. Lazorskyi, G. N. Alekseeva and V. I. Skorobogatov

The influence of ionizing radiation was studied on processes of cholinergic stimulation in various links of the reflex arc (the central nervous system, vegetative ganglions, neuromuscular synapses) in animals exposed to single total-body X-ray irradiation (100–50000 r). Experiments were carried out on cats, rabbits, white mice and frogs with different tests and methods (electro-encephalography, determination of the summation of nervous impulses, record of contraction in the small intestine and isolated skeletal muscle, determination of cholinesterase activity and cellular respiration efficiency when using pharmacological agents and enzyme poisons).

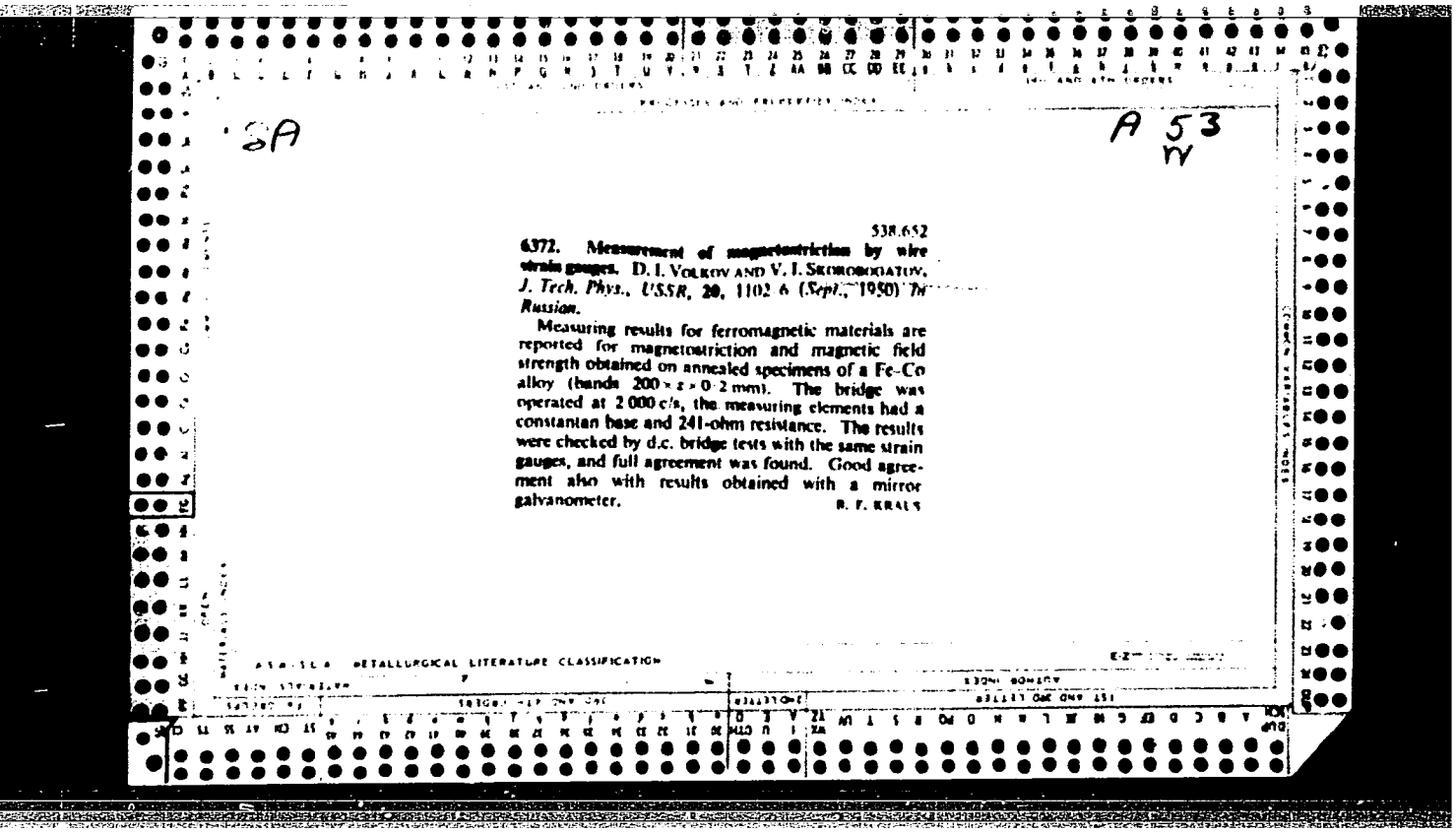
The investigations established a decrease in cholinergic structure sensitivity to analgesics, neuroplegics and gangliolytics, and an increase in cholinergic structure sensitivity to narcotics, anticholinesterasics, cholinmimetics, curare-like and local anaesthetic substances.

These changes have a phasic character and they depend on the functional ability of the cholinergic structure and the degree of radiation injury.

The changes in the irradiated animal are apparently due (in addition to other factors) to the breakdown of oxidative phosphorylation, the consequence of which may be the breakdown of the acetylcholine metabolism and a change of the cholinergic structure reaction to pharmacological agents.

The Central Research Institute of Medical Radiology of the Ministry of Health, Leningrad, USSR

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962



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538.652

6372. **Measurement of magnetostriction by wire strain gauges.** D. I. VOLKOV AND V. I. SKOROKODATOV. *J. Tech. Phys., USSR*, **20**, 1102–6 (*Sept.*, 1950) *In Russian.*

Measuring results for ferromagnetic materials are reported for magnetostriction and magnetic field strength obtained on annealed specimens of a Fe–Co alloy (bands 200 × *z* × 0·2 mm). The bridge was operated at 2 000 c/s, the measuring elements had a constantan base and 241-ohm resistance. The results were checked by d.c. bridge tests with the same strain gauges, and full agreement was found. Good agreement also with results obtained with a mirror galvanometer.

B. F. KRALS

VOLKOV,D.I.; SKOROBOGATOV,V.I.

Magnetostriction measurements in alternating magnetic fields.
Uch.zap. Mosk. un. no.162:121-124 '52. (MLRA 8:7)
(Magnetostriction)

RUDASHEVSKIY, German Yevgen'yevich, kand.fiz.-mat.nauk; SKOROBOGATOV, Vladimir Ivanovich , inzh.; BRYANTSEVA, V.P.,inzh., red.; SOROKIN, T.M., tekhn.red.

[Hydroelectric hypothesis of the nature of cavitation corrosion of metals] Gidroelektricheskaia gipoteza prirody razrusheniia metallov pri kavitatsii. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1957. 12 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 9, no.M-57-173/2). (MIRA 11:12)
(Cavitation)

SKOROBOGATOV, V. I.

"Investigation of Phenomena Accompanying the Propagation of Ultrasound and Methods to be used in Work of this Field: The Application of Ultrasound in the Investigation of Electric Discharges During Cavitation."

report presented at the 6th Sci. Conference on the Application of Ultrasound in the investigation of Mater, 3-7 Feb 1958, organized by Min. of Education RSFSR and Moscow Oblast Pedagogic Inst. im N. K. Krupskaya/

SOV-115-58-4-26/45

AUTHOR: Skorobogatov, V.I.

TITLE: Methods of Measuring Dynamic Magnetostriction (Metodika izmereniya dinamicheskoy magnitostriktsii)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 4, pp 61-64 (USSR)

ABSTRACT: The author describes the equipment and procedure for measuring dynamic magnetostriction by the capacitance method using wire pick-ups. With this, the movement curves of magnetostriction vibrators can be determined for various operating conditions. The apparatus consists of an ac bridge composed of wire pick-ups, and with its diagonal connected to the input of an amplifier. To eliminate the emf induced in the pick-up windings, some peculiarities of amplitude modulation and an upper frequencies filter have been adopted. The bridge is powered by an audio-frequency tube oscillator with a near sinusoidal voltage

Card 1/2

Methods of Measuring Dynamic Magnetostriction

curve. The 4-stage measurement amplifier is of the resistance type and has a permanent magnet moving-coil instrument connected in the output, from which static magnetostriction can be calculated. The output can also be fed through to an oscillograph for determining the dynamic magnetostriction. There are 2 circuit diagrams and 1 photo.

1. Magnetostriction--Measurement

SKOROBOGATOV, V.I., inzh.

Using ultrasonics in railroad transportation. Zhel. dor. transp. 40 no.12:54-56 D '58. (MIRA 12:3)
(Ultrasonic waves--Industrial applications)
(Railroads--Maintenance and repair)

SKOROBOGATOV, V.I.

45

PHASE I BOOK EXPLOITATION SOV/5644

Vsesoyuznyy konferentsiya professorov i prepodavateley pedagogicheskikh institutov

Primeneniye ul' traakustiki k issledovaniyu veshchestva. vyp. 10. (Utilization of Ultrasonics for the Investigation of Materials. no. 10) Moscow, Izd-vo MOPI, 1960. 321 p. 1000 copies printed.

Eds.: V. F. Nozdrev, Professor, and B. B. Kudryavtsev, Professor.

PURPOSE: This book is intended for physicists and engineers interested in ultrasonic engineering.

COVERAGE: The collection of articles reviews present-day research in the application of ultrasound in medicine, chemistry, physics, metallurgy, ceramics, petroleum and mining engineering, defectoscopy, and other fields. No personalities are mentioned. References accompany individual articles.

Card 1/10

SKOROBOGATOV, V.I.

Some characteristics of the effect of a magnetic field on scale formation in the evaporation of hard water. Trudy MIIT no.165:53-63 '63.

Variations in the magnetic flux in a magnetostriction oscillator at different modes of operation. Ibid.:68-81 (MIRA 17:2)

SKOROBOGATOV, V.I., inzh.

Equations of the motion of a magnetostrictive vibrator at different frequencies of a variable magnetic field. Trudy MIIT no. 171:79-92 '63. (MIRA 17:5)

L 31854-66 EWT(1)

ACC NR: AP6021313 (N) SOURCE CODE: UR/0390/65/028/005/0521/0524

34
B

AUTHOR: Zil'bermints, L. G.; Skorobogatov, V. I.; Petryayevskaya, N. V.

ORG: Department of Pharmacology /headed by Prof. A. V. Val'dman/, First Leningrad Medical Institute im. I. P. Pavlov (Kafedra farmakologii I Leningradskogo meditsinskogo instituta)

TITLE: Effect of orthonal on the central nervous system

SOURCE: Farmakologiya i toksikologiya, v. 28, no. 5, 1965, 521-524

TOPIC TAGS: central nervous system, pharmacology, rabbit, cat, EEG, nervous system drug

ABSTRACT: A comparative study was made on the effects of orthonal (2-methyl-3-orthotolylquinazolone-4) and phenobarbital on the condition of the cortex, subcortex, and spinal cord of rabbits and cats. They produce identical changes in the background electroencephalograms which differ only in the rate of their occurrence and duration of markedness. These substances also upset assimilation of the light flashing rhythm and suppress the development of the desynchronization response to acoustic stimulation. In experiments on cats orthonal lowers the lability of the polysynaptic reflex flexor center. Under the effect of orthonal the rate of the excitation conduction along the central portion of the reflex arc is seen to diminish. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 20Jun64 / ORIG REF: 002 / OTH REF: 003

Card 1/1 UDC: 615.78-092:612.82/612.81.014.46:615.78

SKOROBOGATOV, V.N.

From the materials of the sjmposium held in London on the use of sublimation for food drying (from "Food Trade Review," no.12, 1961). Kon.i ov.prom. 17 no.11:43-46 N '62. (MIRA 15:11)
(Food--Drying)

SKOROBOGATOV, V.N.

New developments in the manufacture of canned food containers in the United States (from "Canning Trade," Ja, no.127). Kons.i ov.prom. 17 no.12:33-34 D '62. (MIRA 15:12)
(United States—Food, Canned—Containers)

SKOROBOGATOV, V.P. [Skorobohatov, V.P.]

International exhibition in Brno. Nauka i zhyttia 9 no.12:57-59 D '59. (MIRA 13:4)
(Brno, Czechoslovakia--Exhibitions)

SKOROBOGATOV, V.P.

Inspection of the condition of the subassemblies and parts of cars during operations. Zhel.dor.transp. 41 no.12:73-74 D '59. (MIRA 13:4)

1. Glavnyy inzhener vagonnogo depo, g.Kartaly.
(Railroads--Cars)

MUZALEVSKIY, A.A., inzh.; SKOROBOGATOV, V.S., inzh.

Effective braking of electric actuators. Mekh. i avtom. proizv. 17 no.12:34 D'63. (MIRA 17:2)